

Safety Relay OA 5612

Features

- n 6 output contacts
- n International approvals: TÜV, UL, cUL, CSA
- n Quality control check for each safety relay
- n Forced-guided contacts, all gold flash plated
- n Contact Gap > 0.5 mm throughout life of relay
- n Various contact materials, mixed contact material optional
- n High coil voltage range
- n Very high switching voltage
- n High breakdown voltage: contact/coil > 4 kV
- n High creeping distance: contact/coil > 8 mm
- n Crown contacts
- n Solid connection between coil and contact housing
- n Compact size
- n Custom design available,
 - coil voltage
 - contact pressure
 - operate/release time
 - low power dissipation models
- IP67 washable
- coil resistance



GERMANY



USA/CANADA



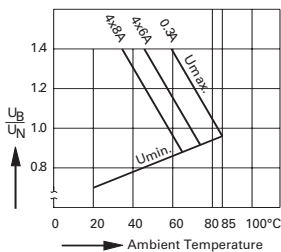
CANADA

Technical Data

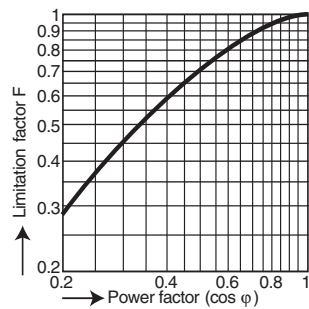
- n **Nominal Coil Voltage**6, 12, 24, 48, 60, 110, DC
- n **Coil Power Dissipation**0.8 - 1.0 W
- n **Max. Switching Voltage**250V DC, 400V AC
- n **Max. Switching Current**8 A
- n **Max. Switching Power—DC**200W
- n **Max. Switching Power—AC**2000VA
- n **Contact Switching Rate**10 operations per second
- n **Relay Operate Time**20 ms
- n **Relay Release Time**6 ms
- n **Operation Vibration**0.35 mm Ampl. max
@ 10...200Hz, 3g max
- n **Protection Rating**IP 40

- n **Contact Arrangements**2NO/4NC, 3NO/3NC, 4NO/2NC
- n **Contact Material**AgNi10+0.2µmAu, AgSnO₂ +0.2µmAu, AgNi10+5µmAu
- n **Mechanical Life**50x10⁶ operation cycles
- n **Electrical Life**AgSnO₂ >3x10⁵, AgNi10 >2x10⁵
.....operation cycles @ 230V AC, 5A, cos φ=1
.....AgSnO₂ >1.5x10⁵, AgNi10 >10⁵
.....operation cycles @ 230V AC, 8A, cos φ=1
- n **Ambient Temperature**-25...+85°C
- n **Cover Material**Thermoplast
- n **Weight**38 g
- n More detailed data upon request

Diagrams

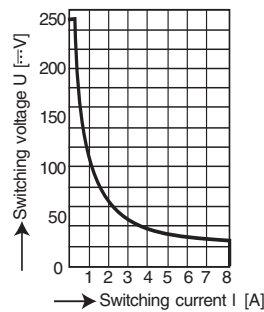


Relay operation voltage vs. ambient temperature



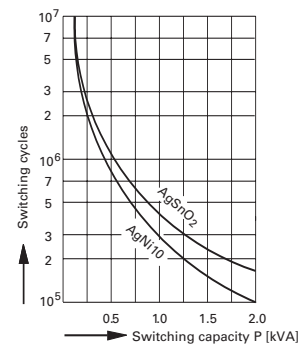
Operations =
Operations (ohmic) x limitation factor F

Limitation factor for inductive loads



Safe disconnection, no remaining arc, max. 1 operation/sec.

Maximum switching power curve



Mechanical life

Safety Relay 5612 Data

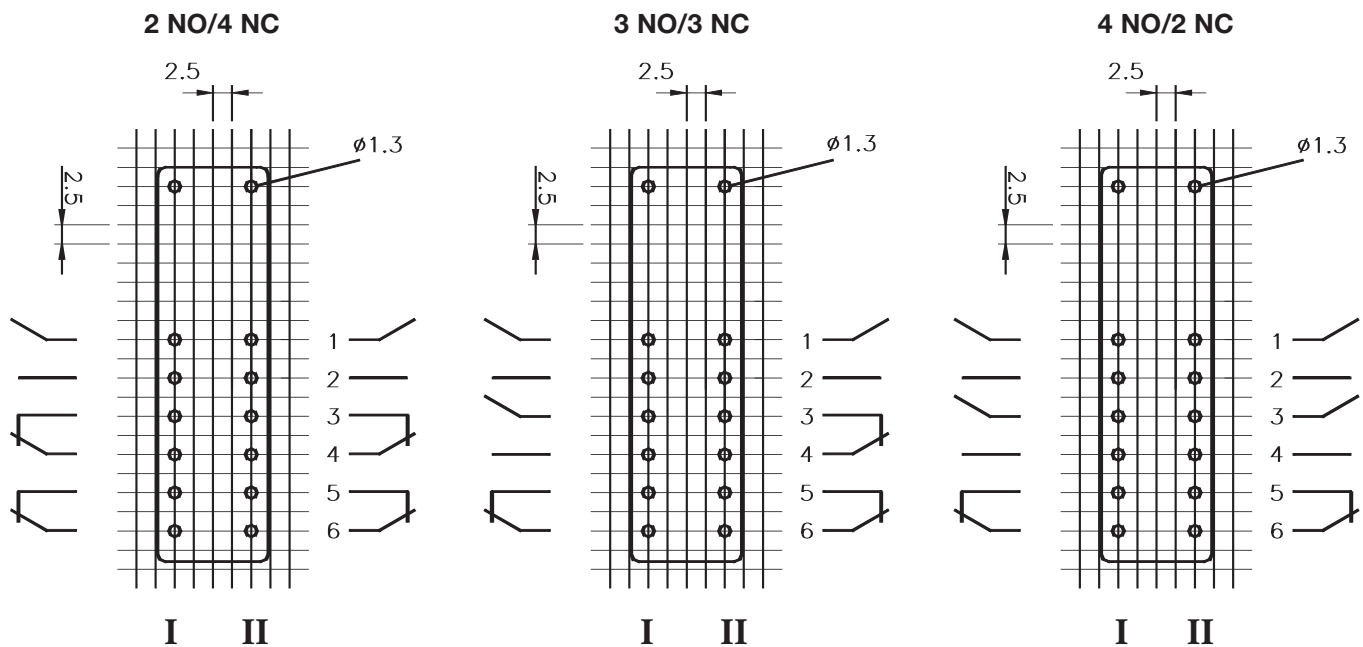
Relay Data				Ordering Information		
Rated Voltage	Voltage Range	Coil Resistance	2 NO/4 NC Type	Coil Resistance	3 NO/3 NC Type	4 NO/2 NC Type
6V	4.2 - 8.4V	36 Ω	56.OA12.0624□	45 Ω	56.OA12.0633□	56.OA12.0642□
12V	8.4 - 16.8V	145 Ω	56.OA12.1224□	180 Ω	56.OA12.1233□	56.OA12.1242□
24V	16.8 - 33.6V	600 Ω	56.OA12.2424□	720 Ω	56.OA12.2433□	56.OA12.2442□
48V	33.6 - 67.2V	2300 Ω	56.OA12.4824□	2880 Ω	56.OA12.4833□	56.OA12.4842□
60V	42.0 - 84.0V	3600 Ω	56.OA12.6024□	4500 Ω	56.OA12.6033□	56.OA12.6042□
110V	77.0 - 145.0V	12100 Ω	56.OA12.1124□	15125 Ω	56.OA12.1133□	56.OA12.1142□

Contact Material, Example: □ AgSnO₂+2μmAu

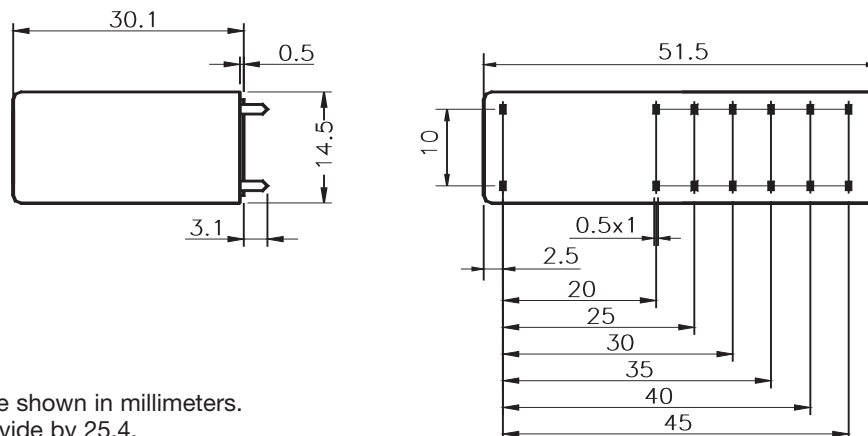
□ AgNi10+.2μmAu

□ AgNi10+5μmAu

Footprints (Note: Shown at their actual size.)



Dimensions (Note: Shown at their actual size.)



Note: All dimensions are shown in millimeters. To convert to inches, divide by 25.4.